

POLICY AND DIRECTIONS FOR CAREER AND TECHNICAL EDUCATION

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>> MCKINNEY: Welcome to today's Webcast.

The National Dissemination Center for Career and Technical Education is pleased to welcome Hans Meeder, the deputy assistant secretary of Vocational and Adult Education in the U.S. Department of Education. Mr. Meeder is responsible for directing research and dissemination activities in support of career and technical education and adult basic education.

He is also responsible for policy development in the administration of the Carl Perkins Vocational and Technical Education Act and the Adult Education and Family Literacy Act.

At the conclusion of Mr. Meeder's remarks, he will respond to questions submitted by those watching today's Webcast.

Mr. Meeder will be speaking on policy directions for career and technical education.

Hans, welcome to the National Dissemination Center Professional Development Speaker Series.

>> MEEDER: Very good.

Thank you very much.

I appreciate the opportunity to be here.

And I want to express my appreciation to the Dissemination Center for hosting this series.

Today's discussion is going to be very similar and based upon the remarks I've given to a number of conferences over the last three months.

And those have been very well received, very productive discussions.

And so I'm appreciative of the opportunity to have -- to be able to share those in electronic format so that more people from around the country can listen in and be part of this discussion.

Today I will cover three areas, one on the economic change, the drivers, the external factors, that are requiring changes within education.

So the second piece will be the challenges we face within education, particularly how those impact career and technical education.

And then a discussion of the key policy objectives that -- in the Bush administration we are pursuing, working toward.

And so I will move forward here.

First, in terms of economic challenges.

We know that -- data tells us that the fastest growing jobs require some sort of education and training beyond high school.

From this chart that we're showing here, the fastest growing jobs in the 1990s were those that required an associate's degree.

And there was a high rate of growth for other occupations requiring higher level training as well.

Jobs requiring less than an associate's degree grew at a slower rate.

We also know that there is a very clear historical correlation between

the level of one's learning and the level of one's earning.

We see for both men and women there is a clear correlation between the degree that an individual has attained and their level of learning. Now, this slide does not tell us some of the more in-depth information about different occupations.

And we do know that there are many examples of technical occupations that require less than a baccalaureate degree, for instance, where you can earn more than someone with a bachelor's degree and that in many of our community colleges, a large number of people with bachelor's degrees in say, for example, liberal arts are coming in and getting technical skills, training, and certifications to make them more employable and to increase their earnings potential.

But in general, the level of learning does correlate with your level of earning power.

This slide tells us that from the national skills report in 1997, in general how the -- the skills needed in the U.S. economy have changed over the last 50 years, where a large percentage of individuals, their jobs in the 1950s were unskilled, about 60%; 20 -- on average, about 20% were skilled professions, and about 20% into professions.

Look at the 1997.

There's been a large shift from unskilled to skilled.

Still added a smaller number of unskilled -- a very smaller number of unskilled, and then the professional held about even.

And if you look and think about the way that today's high schools are organized, which they were largely organized in a model that was developed in the early 1950s, that did presume that about 20% of our students were college prep-type material, and 20% of students would be good vocationally and would receive training along the vocations, and then another 60% of students were being kept in high schools, mostly for social purposes, to keep them out of the labor market as we had returning vets coming back from World War II.

And then we look at the economy, and the design of high schools very clearly related and correlated to the economic factors at that time.

Now, we look at today's economy, and we know that for the most part the design of our high schools is still based on an old model that is not clearly connected to the requirements of today's economy.

That is certainly one of the educational challenges we face.

Small businesses tell us, when surveyed -- and this is from an American Express small business survey of its clients -- a thousand respondents said they placed high value on verbal and written communications, on math skills, computer expertise, and interpersonal skills, but that only about one-third of these small business owners were actually satisfied with the quality of the applicants coming into their doors.

This quote from the Wall Street Journal says, many companies are firing and hiring at the same time, dumping outmoded or redundant employees and adding new ones with very different skills, Allstate, PriceWaterhouse, Bell South, Adobe.

We know this is a trend in American business, and the so-called old social contract between employers and employees, where employers could -- employees could plan on working for the same company for many decades, and the -- and keep that employment and then expect to be trained and retrained over the years as skills changed within their jobs, well, in today's global economy, where technology, international competition, and changes in management at the -- at the site level have created very different dynamics, and that kind of social contract, maybe unfortunately, does not exist any longer. So it's really in the employees' interests to increase their skills, to be reskilling as they go, and for policymakers and educators to make opportunities available for individuals so that they can take advantage of reskilling opportunities and keep themselves employable and personally competitive.

So some of the challenges we faced in education, as we looked at these external factors that are driving change, how does education need to respond?

As I mentioned a few moments ago, high schools have not changed enough.

They are still largely based on the model from the mid 1950s.

And that model was based on a belief system that there was a finite amount of talent and that there was a soft -- a soft bigotry, not always clearly expressed, but a soft bigotry of low expectations. President Bush has been very emphatic about the need to be -- to be honest about this soft bigotry of low expectations in our schools and to deal with it.

We also know that there is a disconnect between students' aspirations and the actual level of their preparation in high school.

We see this then playing out in some of the symptoms of higher rates of remediation that are necessary once students make a transition to college.

There's a high rate of drift-out that happens for students that are -- that are in college.

And we know that for the most part high schools are not pairing college preparation and career awareness for their students.

A very un- -- disturbing figure here, we see that the reading performance of 17-year-olds has stayed essentially stagnant for 20 years.

And, actually, in the most recent assessment of education progress, the reading performance for 17-year-olds went down slightly.

Now, this is -- this is a national assessment, and it's administered to a sample of 17-year-old students.

This does not capture the students that actually have dropped out

between their 9th and their 12th grade years.

And there's varying estimates of what that dropout rate actually is, but some of the better estimates are in our urban centers it's as high as 50%.

So we're losing large numbers of students who are falling behind.

They enter high school, certainly years -- some of them years behind in their reading ability, and this clearly tracks over to their ability to do mathematics and science.

And for some of these students, dropping out is not a surprise at all. We also know that there's a drift-out that happens. Students who are entering college go through one year of education and don't return for a second year.

In our four-year colleges, the rate is about 26% don't come back for a second year.

In our two-year colleges, about 45% do not return.

We don't know the exact reasons for this.

But we do know that particularly in our two-year colleges, they are serving the largest numbers and percentages of disadvantaged students, students of minority groups, low income, and certainly there's going to be economic factors and family and social factors that play into this large attrition rate.

But we also know that the academic preparation at the high school level is the best predictor of where the students enter college and whether they persist in that college program.

This data indicates that mathematics -- the level of math taken in high school for at-risk students is the best predictor and clearest correlation of their entrance into postsecondary education.

When we used the term "at-risk students" in this study, it was talking about college -- students who were first-generation college students, students who were from a family that was economically disadvantaged, or students that attended a high school that had a high percentage of economically disadvantaged students.

So for students that only took the basic math in high school, only about 5% of those students enter postsecondary education.

Now, this can be through open enrollment or through more traditional colleges and university.

But the higher level of mathematics that they took in high school clearly showed the higher percentage of entrance into college programs.

We know that the strongest predictor of college completion is a rigorous and challenging high school course of study.

So not only is entrance into college but also persistence in college clearly related to the kind of academic classes that students take while in high school.

So mathematics is the area that was most clearly correlated, and then the second most clearly correlated was taking experimental lab science classes.

Now, why is this important?

We know that there is a disconnect between students' aspirations and what they're doing in high school.

Clearly, in today's culture people know that more education is important.

And when you ask students, 97% of them say, "I intend to attend

college of some sort during my adult life."

About 63% of those students actually enroll in college the semester after they finish high school.

But when you look at the course-taking patterns, only about 30% of students are taking the full range of academic classes that were recommended 20 years ago in the Nation At Risk report.

Now, that does not specify specifically what sort of math or what sort of science classes that one would take.

And so that's an issue that we also believe and evidence tells us is important, not only taking a certain number of math classes and a certain number of science classes, but the rigor and the content of what those classes include.

Another factor, as we're thinking about the impact of all these changes and pressures on career and technical education, in many cases vocational education has not demonstrated a clear impact on academic achievement, on high school completion rates, or on postsecondary transition rates.

I know this is a subject of some controversy, but when you look at the best available national data that we have looked at, there does not seem to be a clear correlation in taking numbers of vocational classes and these outcomes.

Now, there does seem to be some impact on short-term earnings gains. And certainly if a student is in high school getting some practical skills and then they take those skills with them when they leave high school, we're going to see some positive earnings gains, and that certainly can be a help as a student is pursuing further education to be able to earn more in the marketplace and help put themselves through college.

And some people will argue this is not the intent of vocational and technical education; that really it is only about preparing immediately for the marketplace.

That may have been true in the past.

But I think as we see the overall changes in the economy, we have to consider what would be the appropriate outcomes that we're trying to see from our vocational and technical programs.

We do know, on a positive note, however, that when students take a concentration of vocational classes and academic classes, what you might call college prep classes, there is a very positive impact or positive relationship to how they do academically.

This chart demonstrates four types of students:

The average student; and then it'll have a college prep students, students that are only taking college preparatory classes; vocational concentrators who are taking several vocational classes but are not taking what's considered college prep classes; and then the fourth column in these three groupings is the students that are taking both a college preparatory set of academic classes and a concentration in technical classes.

And they are achieving in both reading, math, and science at almost as

high a level as the students who are taking the traditional college prep curriculum.

From what I understand, maybe about 11% of students fall into that category that are taking a concentration of vocational classes and

academic preparation classes.

So that's a lot of room for increasing the academic content of a program that has a strong career-technical component.

So some of the challenges, when we sum this up, we -- we know that all youth in today's world need a higher level of general academic preparation, regardless of their chosen educational or career path.

And we -- as all of us have made several career adjustments in our lifetimes, we know that it's very difficult to make a final career choice in high school.

And so even if a student is choosing for the short term a career path that possibly doesn't require much in the way of academics, as adults it's -- it's in -- it's our responsibility to make sure that students get a broad foundation that will give them options and choices beyond high school.

Unfortunately, many of our high schools and traditional vocational programs are not designed to meet this objective.

Students perhaps coming into high school are behind academically, they stay behind academically, and either through their own personal choice or through some counseling or some direction, they may have been guided into programs that require less of them academically.

Unfortunately, that holds the quality back of our career and technical programs as well because we know that the requirements of today's technical jobs are very high, and literacy, both reading and numeracy, requirements.

And it's -- it's very difficult to raise the quality of the technical rigor of occupational pathway programs if we have students that are not prepared to really engage in the content of those programs.

Will Daggett has done some new research that has analyzed some of the entry-level reading requirements in the technical fields.

And, in short, his findings indicate that the reading requirements of entry-level technical manuals are often much more difficult than the general reading requirements that are required in baccalaureate-type business management professions.

So you may have an entry-level technician actually needing to perform at a higher level, in terms of their literacy and their comprehension, than their managers.

So the old notion that entry-level technical jobs really don't require much in terms of an academic foundation is -- is really outmoded.

Another very important challenge -- I talked almost entirely up to now about youth and coming into the high school.

We know, because of this model that did not sufficiently challenge and teach students in the past, we have millions of adults currently in today's workforce that do not have adequate academic and technical skills to be personally competitive.

The most recent national adult literacy survey indicated 40 million American adults are operating at the lowest levels of basic literacy. So we will have to design and continue to improve our career-technical programs so that they are accessible to those adults who need to be reskilled right now.

And, finally, an important challenge is the connections between our high schools and our postsecondary systems and employers.

We know that -- from experience from working with schools and programs around the country, that for the most part the approach of everyone doing their own -- their own activity and really not intersecting between systems is still, unfortunately, the characteristic of most programs.

Now, as we think through these policy challenges, we are wrapping it in the -- in the framework that has been developed by the administration of President Bush in thinking about education improvement.

And there are four key principles that we will keep in mind as we work with Congress and work with the field in developing policy for the next generation of federal legislation.

First is increasing accountability for student performance.

We believe that the existing law, the Perkins Act, made great progress in increasing accountability and in reporting on student outcomes, gathering information, states holding themselves more accountable for improving student performance.

But we can do better, and we certainly need to do better, in terms of making sure that our programs are operating at the highest quality possible.

Secondly is focusing on what works, investing in research that tells us more directly the kind of outcomes that we can expect from certain strategies.

I think everyone that's involved in career and technical education has observed success.

They've seen a student get turned on to learning, have a new approach to learning, be excited about the curriculum, in a way that has made a difference in that individual's life.

Unfortunately, the research has lagged behind people's individual experience.

And we don't have what I would consider strong evidence that specific strategies that occur in career and technical education make an impact.

So we are investing or beginning to invest in that higher level of research, the empirical research that Dr. Whitehurst spoke about recently in one of these Webcasts on building a culture of evidence in education.

But on this piece, we also want to use the existing evidence that we do have.

And that's why it's very important, one, that we're using the national accountability data as best we can to find trends and find evidence,

but we also are depending on the field and will be asking the field to help send us examples of the data that is -- that you do have and the data that is being gathered to demonstrate what might be having a positive impact on behalf of students.

Thirdly is reducing bureaucracy and increasing flexibility.

If you travel around the country -- I've been very privileged to see dozens, now, of different approaches to delivering quality programs to students, and no one model looks exactly the same.

They may have some general principles, but certainly models are tailored to the needs of the specific community and the demographics of that community and the characteristics, for instance, whether it's a rural area, a suburban area, an urban area.

And, finally, increasing choices for students and parents, particularly for youth and those that have reached the legal age where they can drop out of school if they choose to.

And we certainly know that teenagers are very capable of dropping out mentally, even if they're sitting in our -- in the classroom.

We have to have options for them that will keep them engaged, that they will feel some ownership over.

And so these four principles are really the key principles that we will keep in mind as we think about how to improve the quality of career and technical education.

Specific policy objectives now around career and technical education are, one, that whatever happens in -- whatever is developed in terms of the next generation of the federal investment in career and technical education will ensure that it complements the academic mission of No Child Left Behind. And what I would like to say about this point is that No Child Left Behind is often thought about as primarily a piece of legislation and programs that affects Grades 3 through 8.

That is very far from the truth.

The law does require that every state assess students in reading, math, and science -- science is under development -- but reading and math and science between the grades of 10 and 12 and that every school within that state set goals for annual yearly progress of helping students achieve a level of proficiency and then reporting, school by school, on how the different subgroups of students within that school are performing.

There -- most -- most high schools do not receive Title I dollars from the element- -- from the No Child Left Behind Act.

And so they are not going to be subject to the federal sanctions called for low-performing schools, but they will have to comply with the public reporting.

And that probably is the most important piece of No Child Left Behind, is the information that will be made public about the performance of schools.

And some schools will certainly have pockets of students that are not performing as well as we would hope, particularly in closing gaps



between students who are economically disadvantaged or student -- or based on ethnicity and race.

So we want to -- that will be a positive pressure that will be helping high schools rethink how they are doing business.

And the quality career and technical education programs operating within that environment can offer some real solutions and some opportunity to help students achieve at a higher level.

So in that way, we want to make sure that federal legislation around career and technical education complements and recognizes the dynamics that are in place because of No Child Left Behind.

Secondly is that every youth enrolled in a career and technical education pathway program would receive a challenging academic core that would prepare them for further education and career success.

And in this we're using this term "challenging academic core."

And it's not dissimilar at all from what Gene Bottoms and High Schools That Work have been talking about for over a decade, that we have to identify the kind of academic classes that we're going to consider as a minimum for all students taking career and technical education class -- courses.

And, again, as I said earlier, regardless of their chosen career path, there needs to be a higher -- a higher level of minimum courses expected.

And if we do have remedial review classes, which we'll certainly need because many students are coming in quite a bit behind in the academics, those classes should not be designed to allow students to continue through high school at a low level.

They really need to accelerate their learning in mathematics and accelerate their learning in reading so that they can get up to the more challenging classes that they will need as part of a challenging career-tech program.

Thirdly, ensuring that every CTE program offers a clear pathway into postsecondary education.

And when I say "postsecondary education," we're really not talking about an ivory tower mentality that every student needs to go to a college or university, although we certainly want students of color and students of economic disadvantage to be going to colleges and university at an equal rate or better, even, than majority students because we have to undo some of the wrongs of the past.

But there are many options that are very valid in today's economy. We have -- we have credentials that are valued by business and industry.

We have apprenticeship programs, associate's degree technical programs, and certainly those that would also connect to baccalaureate programs.

So the idea is that we should -- every student needs to have a pathway that extends beyond just high school.

Now, in the pathways that are being developed, and many of them are being developed right now, many of them have several stepping-in and

stepping-out points where you might have credentials along the way that allow a student to get a credential to earn their way, to continue in education.

So it doesn't necessarily have to be -- it needs to be flexible enough to help a student, particularly those that are low-income and first-generation college students, to earn and learn, and somewhat simultaneously will be the case.

We need to make sure that high-quality CTE programs are widely available to youth and adults, career-changing adults, in particular, through a variety of institutions and delivery models.

It's actually quite exciting, when you get a chance to see and review all the different activities that are happening, the partnerships that are forming between employers and different institutions, the high school programs in the regional career-tech centers, community colleges, and baccalaureate programs.

There's a great amount of innovation and development happening right now.

And we need that to continue and to accelerate, because when we look at the overall trends, the challenges that the American workforce is facing, we have to have a wide array of opportunities for both youth and career-changing adults.

And, finally, we cannot lose the focus that this particular federal investment is about national and regional workforce quality and then, ultimately, economic competitiveness.

So it's -- it's not about academics in a narrow sense, but today's workforce requires a strong academic foundation and a strong relevant technical set of skills.

And so this -- this piece of legislation will really bridge those two, education improvement and workforce quality.

I'll speak for a couple moments about some ideas that we are developing, in terms of what this kind of program would look like that would help achieve those objectives.

First, we have proposed a Secondary and Technical Education Excellence Act, which we often called the sec-tech program.

And in that proposal we would synthesize the best elements of the existing Perkins state grant program and the best elements of the tech prep program.

We don't believe a separate tech prep program is necessary any longer; that it has been a great driver of innovation and systems connections. The infrastructure that has been developed with -- in many places with tech prep is very important, and we would need to make sure that that -- those kind of connections were facilitated in a new program. But -- but we don't believe that it needs to be a separate standalone program any longer.

In this proposal, states would receive funding that is essentially based on the same formula as the current Perkins Act, and they would receive funding, but instead of splitting the funding and sending it down through separate systems, the secondary and the postsecondary,

the State would fund partnerships between high schools and postsecondary partners.

And those postsecondary partners could include community and technical colleges or colleges and universities, also apprenticeship programs. The employer-provided training could be part of those partnerships. The programs themselves are what is really going to make or break this proposal.

The programs would need to be developed in partnership between high schools and these postsecondary partners.

They would need to have this identified challenging academic core.

Now, some programs will need higher level classes than the academic core.

We know that the engineering and the sciences will require a fairly high-level academic preparation.

But at least a core for all students to get.

And the classes themselves, there is definitely a role for career exploration and career awareness.

But when you get into the kind of the nuts and the bolts of a program, for -- if you're talking about 17-year-olds and 18-year-olds, those classes should be nonduplicative of what's happening at the postsecondary side so that the students are having to take content over when they get their high school diploma.

And, ideally, the development of dual enrollment and concurring enrollment is a great promise.

And it really will make this whole endeavor much more attractive to parents if they know that their student is not just getting a career and technical set of skills, but is also getting credits toward -- to finishing up that -- in a postsecondary program.

The State would have a role in identifying and making sure that the career pathways that are developed and offered within that state are in demand; they have a relevance to that state's economy; and they lead to economic self-sufficiency.

And another factor, which is not on the slide, would also be if that state or that region is trying to develop as an economic development tool, trying to develop certain capacities, such as in an emerging field such as biotechnology or nanotechnology, where currently there isn't an existing demand, but it's part of their economic development strategy, and finally that these pathways are not meant to be a rigid model, for example, that you have to do two years at the high school level and two years at the postsecondary level.

If anything, we should be compressing how learning happens.

I was at a school recently, and they've developed an articulation with their state university -- this was at a community college working with a university -- and they -- when they really looked at the content of their classes, they realized they could deliver three years of a baccalaureate program at the community college level and in the final year at the baccalaureate institution, and then the student would receive the baccalaureate degree.

So that sort of condensing and connecting of programs will certainly be a good value for the student and a good value for the taxpayer. So the State would need to create a much closer collaboration between a secondary agency and a postsecondary agency to manage the funds that are coming from the federal government and to develop program requirements to make this proposal work.

The State would need to develop the -- or identify the challenging academic core classes -- that would be the minimum -- and also have the processes for recognizing the career-tech programs within the state and then set the criteria for how it would fund local high schools and postsecondary institutions.

And there has certainly been a lot of discussion about whether this should be all competitive grants to local partnerships and some concern that in a completely competitive environment, that small districts, rural districts that maybe don't have some of the resources would not fare well competitively.

We are thinking about different ways for a funding system to work and also believe the State needs to have a good amount of control into how that funding system works.

But a formula that just funds almost as an entitlement to a local school is not a productive formula.

There -- there can be ways that even having a formula that you might call a conditional formula, that if you carry out certain activities and meet certain criteria, you get an amount of funding.

So it's very important that we think about how the funding incentivizes action.

Now, we believe that this proposal will have strong benefits for all the partners involved.

And I'll go through these rather quickly.

But for the students, particularly, they will have greater choices that can be tailored to their individual interests.

And in an environment where we are having an accountability system that is now challenging the old high school where the school will be accountable for closing achievement gaps and helping all students reach a level of academic proficiency, the school is going to have to respond, and offering students a variety of options and choices that help them reach that same level of academic proficiency is very important.

And so career-tech programs can be part of that solution for students. Certainly, it will help the school make sure that all of the students and the ones in concentration of career and technical programs are enrolling in these core academic classes that they will need to give them more options at the postsecondary level.

And then it will make sure -- it will enable the students to obtain college level credits while they're still in high school and give them exposure to an integrated approach to career awareness and career planning and college preparation, and then, finally, will ease their transition into and through college-level programs.

We all know many students at the community college level, open enrollment, or at the traditional state college or university, where they are there in body but do not have a purpose, do not have a plan, and it certainly makes focusing and going through the challenge of doing their classwork difficult when they don't have a clear plan for that, for what they're trying to accomplish.

For high school educators and high school leaders, these kind of pathway programs will help them improve academic performance and eliminate low-level tracking, which everyone knows needs to be eliminated.

And then it will position career and technical education as a career -- as a key strategy for improving our high schools and at the same time create stronger linkages to postsecondary education programs, training, and employers and employment.

For the community and technical colleges, they will be receiving a better prepared student, and as the system linkages are formed, better communication between what's really expected at the college level, so that high schools can make sure students are getting those skills.

We know that much of the problem with remediation (inaudible) for preparation (inaudible) level (inaudible) factor.

High schools have no idea what it really means to be college ready because the colleges have not communicated that effectively to the high schools.

So better system linkages will make it more clear what it means to be college ready so that the high schools can design programs that really do prepare students for making that transition.

It will strengthen student retention and completion through the college program as students are coming in better prepared with the academic foundation and a good career plan.

It will create a more compelling value to employers so that as -- as community and technical colleges are engaging employers and consulting with them about the design of programs, to know that they have pathways where they're bringing career-changing adults and youth through these pathways as a -- to bring employees into the market that are well prepared and focused.

And, finally, it will make it -- it will improve the connections between community colleges and the baccalaureate programs.

Some of what we're envisioning is, as I said earlier, is a stronger collaboration at the state level in creating better state policies to then facilitate local partnerships.

For employers, helping to be sure that the programs they are supporting, that they are involved in, are actually based on the kind of skills that are used in the workplace, connecting local programs to industry-based and nationally recognized skill standards and improving the potential for the connections between -- to the state workforce investment system.

And when I say that, I mean that we know that the workforce investment system is largely based on a model of individual choice, individuals

going in, getting career counseling.

If they qualify, they will train with them.

Through this program, they will develop a range of well -- of high-quality career-technical pathways.

That will certainly be a primary receiver of those individuals that are taking their individual training account dollars with them to get high training.

So, again, the policy objectives that we're -- in the Bush administration are working toward, making sure that career and technical education complement the academic mission of No Child Left Behind and that every youth in a career-tech program receives that challenging academic core, making sure that every student has a clear pathway, a clear set of connections beyond high school into postsecondary programs options and that high-quality programs are available to career-changing adults and youth and keeping the emphasis and the focus that this is workforce quality and economic competitiveness.

Well, I do not know the answer to will Congress take up legislation, and I'm not the best person to ask, but I will tell what you I know.

We don't know specifically how quickly Congress will move on this.

We hope it will be next year.

But Congress has quite a bit of different legislation priorities that they're working toward.

So it may be next year.

And we will certainly do all we can to facilitate that and to be ready.

What we've been doing the last several months is really building a stronger sense of consensus and common direction within the education community about how career and technical education can be part of the solution for high schools and part of the solution for strong workforce policy.

Three weeks ago the secretary of education held a national summit on the high school, and within that summit we talked about the -- a new model for high schools, and certainly that's raising expectations and making high schools more relevant to the students that they serve.

What I would like to encourage is that regardless of the time line that we're working toward on reauthorization, is that wherever you are in education, whether you are a teacher or a school administrator or a policymaker or a leader, there is much that we can do.

And all of the great innovations that we have seen are being done within the current framework, very creatively, excellent leadership, but they are being done, and that we really cannot afford to wait to move in the right direction.

We need to do as much as we can right now.

And then certainly as -- as we see policy constraints and things that don't facilitate those kind of partnerships and connective programs that we need, we need to identify those and then try to correct those in the federal legislation.

I -- I have a role of meeting with leaders from many different parts of the career and technical education system, and everyone tells me their concerns.

Often they're legitimate concerns about who gets what amount of money and what percentage of money and who makes what policy and can you get the right people to the table.

And some of those concerns are very legitimate, and as best we can, at the federal level, we will try to create a good, level playing field. But the thing that we don't want to happen is that those legitimate concerns become a smokescreen for really just continuing to do things the same way that we've done them for many years and for not building those partnerships between systems.

Susan Sclafani, who is the acting assistant secretary for Vocational and Adult Education and the counselor to the secretary, implored us recently within our office to remember this is not about what's easy for the adults; this is about what's right for the students.

And certainly improving the quality of programs, the professional development that has to go along with that, and then connecting the systems is not easy for the adults.

But if we cared most about what we're doing for our students, then we will engage in that difficult work.

And certainly the most important aspect that is required is leadership.

And wherever you are in the education system, you can exert leadership in setting a clear vision and moving toward it and trying to rally people with you to move to that common vision.

I want to express my gratitude again for the Dissemination Center to have the chance to talk with you about this important future of how to make education, particularly career and technical education, as strong as possible on behalf of our students.

Thank you very much.

>> MCKINNEY: Thank you.

During the next few minutes Hans has agreed to respond to questions that have come from those of you logged in at one of our chat rooms and to engage in dialogue about the information that he has presented. And, Hans, we have several questions that have come in, which speaks to the interest of the field in the things that you have been talking about.

One of them that came in is something like: What are some of the best Perkins state grants and tech program examples that -- and you mentioned that some of those will be synthesized into the new proposals.

Can you give some examples of what some of those might be.

>> MEEDER: I will do my best.

When we had our high school summit a few weeks ago, we had four local sites with us on a panel where we discussed this, and I can't vouch for every bit of data and outcome that they've ever had.

But we had the Central Education Center outside of Atlanta, which is

an interesting hybrid charter -- independent charter school that is chartered by both the local school district and the community college district and the local Chamber of Commerce.

And they have integrated challenging academics and relevant technical skills. They've concentrated that on the site because they have expensive equipment in a number of areas.

We had Northern Virginia Community College that is formerly a health sciences partnership with its -- really all across the board with its high schools -- it's Fairfax County Schools, I believe -- with the state university, with the hospital system, to create an integrated pathway of health science opportunities.

Just the last two days I saw two excellent examples of programs here in Ohio: Butler Tech, which is a regional school that has formed some very promising partnerships between its high schools and its employer community in a number of areas.

Lorain County Community College in northern Ohio, they have really taken -- positioned themselves as a leader in economic development and economic redevelopment in an area that is struggling really from the almost total elimination of the steel industry.

But they have positioned themselves in a way that can help, really, do the -- help facilitate the transition from the industrial economy to a knowledge-based economy.

So there are -- I also know of states that have taken very important policy actions.

One, for example, I know is Arizona, but many states have done this, where they have taken the content standards that are being expected for their high school students and, through a very explicit process, tried to identify how those content standards could be reinforced in their career and technical education programs.

And they are starting to see some very positive outcomes for their students who take a concentration of career and technical education on the state academic assessments.

So a number -- a number of states and then local sites are doing some very positive reforms.

>> MCKINNEY: Some of these that you've mentioned are some examples of academically rigorous CTE models or ways of approaching CTE, but are there others that particularly impress you that are academically rigorous?

>> MEEDER: Well, as I say, "Project Lead the Way" is a national project, and perhaps it's already been profiled here on the Webcast. That is spreading like wildfire, and it does include a very academically rigorous math/science program in the high school that connects to both community and technical colleges and baccalaureate programs.

I believe that it's being implemented through -- statewide right now in both North Carolina, and South Carolina is -- I can't remember the details of how they're working at it, but they're doing some important things with that project -- with that curriculum as well.



>> McKINNEY: What are some of the indicators, in addition to academic standards, that will be used to determine success of tech ed programs?

>> MEEDER: The indicators -- well, that certainly is a critical question about what kind of indicators can we use to indicate quality? And certainly we believe that academic indicators need to be part of the equation.

I think it's a fair question to ask that when we report academic performance of students, are we reporting it to prove a value-added proposition that involvement in these career-tech programs is actually increasing their academic performance, or are we reporting that as more of a snapshot of -- to make sure that students coming into career-tech programs are at least academically well prepared to access the curriculum and that we're closing those achievement gaps that career-technical programs are not viewed as a so-called dumping ground.

So that's -- I think definitely academic performance indicators. There's been a very healthy discussion about how to better measure technical skills at both the high school level and the college level. And many people are proposing the development of generic technical literacy assessments.

That's a possibility of what might be in the legislation.

In terms of building system linkages, we think that some measures that are important are the graduation rate, which is -- again, academic skills and the graduation rate are already embedded in No Child Left Behind, and the methodology is in No Child Left Behind, and states are implementing them.

So we don't want to have a separate methodology that would conflict with that.

But transition into postsecondary, particularly for students that are in a pathway.

Are they transitioning into postsecondary, either the pathway that they were already involved in or some other option?

Which is certainly very acceptable.

And then when they're in the postsecondary side of the program, are they completing the program?

I think that we -- that when students say that they're there to participate and complete a program, we should hold them at their word, and then that should be an accountability measure for the postsecondary partners.

Another factor that we -- we need to develop the capacity at the state level is to measure remediation and to know how much remediation is being needed at the postsecondary level.

And then that will be a driver to increase the system connections that we talked about earlier so that high schools know more what is expected at the college level and can make sure that those skills are being taught to their students.

>> McKINNEY: Follows into one of the next questions having to do

with completion at the postsecondary rate.

And given the age range that we see in community colleges, completion's always a tough thing to figure out.

>> MEEDER: Right.

>> McKINNEY: Do you have any thoughts about that?

>> MEEDER: Well, it might be -- it gets quite technical.

From what I understand, even though the average age of college students -- community college students is about 29, there still is a large percentage of community college students that are young, coming right out of high school, and then an older group that are coming back in for career changing.

So it gets complicated technically, you know.

How much time do you measure? For instance, do you say a student that's completed within five years of starting is -- that that's the time frame?

That's a time frame that I've heard suggested, and that may work.

But it's certainly something that as Congress and we work on identifying those measures, we'll have lots of discussion back and forth with the people that actually had to implement those.

On that note, we do have a working group called "Performance Measurement Initiative," which involves six state teams, both high school, postsecondary, and kind of the state data people, to be thinking about how you might take a set of indicators and improve the ability to collect that and use that not only for state-to-federal accountability, but also for local program improvement.

And we have a variety of states, different sizes and different characteristics, that are involved in that.

So I hope that, you know, that will also help inform this discussion.

>> McKINNEY: Do you think it's possible to both prepare a student for postsecondary education and for employment in a job requiring specialized skills?

And I think we're talking in this question about is it possible to do that at the secondary level?

>> MEEDER: Right.

I think that the -- I'm not absolutely sure.

It depends on how much specialized technical training you would need, and would that be -- to such a volume that you could not take all the academic requirements in a high school.

And I would argue that if that was the case, then it would not be worth the cost; that we need every student to -- to achieve a general level of academic preparation.

And if we can give them a lot of strong technical skills at the same time, let's do it.

Let's compress the learning and accelerate the learning.

But we can't do it at the expense of those foundational academic skills.

>> McKINNEY: Recently, Dick Fonte from the Austin Community Colleges, one of our Webcast presenters, and the Austin Community

College is administering the CTE programs for the Austin Independent School District.

Do you see this as a promising model, or are you familiar enough with the model to indicate whether it's one of your promising models?

>> MEEDER: Well, I know it's -- I'm not as familiar with that model in Austin, but I know that in Iowa they had developed a partnership where most of the career-technical programs are delivered at the community college level, and for them that model appears to work relatively well.

In other states, where there has been already a heavy infrastructure investment in regional centers and equipment, I think the most important factor is just making sure that there's an efficient use of those resources and facilities.

And if they're better developed -- if they're better offered at a regional center and then in connection with another postsecondary partner, that's fine.

But I think there are probably different ways to get to the same end.

>> McKINNEY: One of our questioners is saying that approximately 40 million jobs are filled at the lower level, technical level, including some manufacturing jobs, although we know some manufacturing jobs have very high technical needs.

These jobs are now being exported overseas in many cases. At least that's the common rhetoric that we hear.

>> MEEDER: Right.

>> McKINNEY: How can the new proposed legislation, the sec-tech act, deal with this variable that is of concern to a lot of people, I guess?

>> MEEDER: That is an absolutely -- that's a chilling concern, when we see that not only are low-level, low-skilled jobs being exported, but that even medium- and high-skilled jobs, through -- because of broadband technology, you can take a set of software requirements and send those over to India.

At the end of your workday, programmers in Bangalore, India, will be working all night, send you back the software project in the morning. We know this is happening in some accounting.

So it's a challenge of how do we stay economically competitive; how do we get ahead of the curve?

And it's -- it's one -- I'm going to actually be on a panel next week hosted by the Computer Technology Industry Association with a colleague from the Department of Commerce and the Department of Labor, and the title of the session is "Offshoring," which is this term for offshoring high-end job requirements and the challenge of that.

So I know here in Ohio, again, since I've been here for a couple of days, they've identified five key areas.

They call it the third generation initiative.

And those -- and staying competitive in those key technical -- technology developments really then drives all the other occupations and supporting jobs.

So we have to stay ahead of the curve.

And, certainly, there's no way to do it unless we have a strong, highly qualified workforce across the board, both those that are universities that are going to be doing research, basic research and applied research, and those at our community college and training programs to implement that technology widely through the economy. We need both, the innovators and the implementers.

>> MCKINNEY: You mentioned the dropout rate earlier in your remarks and in our dialogue here, and certainly it's one of the major problems facing our country and our educational systems.

Do you have some suggestions of what we might do to help reduce the dropout rate?

And is there a role for career-technical education in that?

>> MEEDER: Yeah, the dropout rate is another critical challenge. And I believe that the Gates Foundation and their work on high schools has offered a pretty memorable and, really, a very well thought-out phrase of improving high schools is about rigor, and it's about relevance, and it's about relationships.

And certainly we know that students need to be challenged to a higher level, and students will become more engaged.

But the relevance piece of it is where career-technical has so much to offer.

And the old adage -- the old saying, will I ever use this, will this ever matter?

Well, a high-quality career-technical program can answer that relevance question.

And I've also talked to students who simply because they love what they're doing in these classes are willing to work harder in their academic classes because they can't participate in the classes -- the career programs they love unless they get decent grades in these other classes.

So there's a connection and a benefit right there that will help students perform and stay engaged.

And then the relationships.

When we have in many of our high schools 2,800 students in some places, 3,000 students, students really have lost their identity, and if they don't have relationships with adults who care about them, then it's much easier to drop out and drift.

And, again, in career and technical education, the student organizations and the facilitators that lead those student organizations and the relationships the students form with those adults and with their other fellow students, that is a wonderful asset to help students stay in school and improve that graduation rate.

>> MCKINNEY: Some argue that the workforce for 2020 is beyond the impact of K-12 education.

If that assumption is correct, what needs to be done to enhance the quality of the workforce for 2020?

Who is or who should be responsible for that, and what should they do?

>> MEEDER: Right.

>> McKINNEY: That's a loaded question.

>> MEEDER: Well, first, I will challenge the assumption. 2020 is, my guess, 17 years away.

So we have 16 cohorts of high school seniors that will be entering something beyond high school, probably a mix of education and work-- and being engaged in the workforce.

And that's -- I don't know the exact number, but that's, you know, a million students a year or more.

So that does have an impact on our workforce.

Now, we still have tens of millions of other adults that are already in the workforce and, as I said earlier, that are low skilled.

So we have to do a better job of figuring out how to help students get the academic skills and the technical foundation and accelerate these programs.

So I know that -- I know that there's a project, for instance, called "Opening Doors."

I cannot recall who it's supported by.

But they're looking specifically at how do you design a reskilling program that helps low-income adults get the academic and the job skills to be employable?

And with this model of episodic learning, you're not going to get an adult to take a two-year full-time program, so you're going to have to have episodes of learning and training.

And we have to design our postsecondary programs to be flexible and be able to help adults access those episodes of learning.

So I think it's really -- it's a both questions; it's not an either/or question, though we have to have a much better K-12 system moving well-qualified young adults into the workforce and then a better reskilling system.

>> McKINNEY: Do you have any ideas about what could be done to increase the portability of career and tech ed skills among colleges? And I think this is a case of an individual being in one college and going to another one and having difficulty getting credit for that.

>> MEEDER: Right.

Well, the credit issue and the portability of credentials and classes is a tragedy.

We know the individual stories of people that get credits, and they're even told that these will count in some other institution.

When they get to that institution, somebody slams the door.

I would like to know if there's any good analysis of the aggregate cost of individual educational expenses and taxpayer cost for this -- for what happens to be kind of an individual case-by-case tragedy, because I think we would be surprised at how much time and money we're wasting because of lack of transferability and portability.

Some of the pieces that I spoke about, though, in terms of some statewide policy in identifying and developing these pathway programs and having more commonality within the state will at least start to

make it a little easier for the transferability.

It doesn't really get at state-to-state transferability, but at least within state, and we know that most of our career-changing adults and our lower income citizens, they're not inclined to move far away to access education.

They're going to need to get education where they are now and -- but certainly within state we've got to improve that system.

>> MCKINNEY: You spoke about tech-prep and said many of the characteristics of that program are embedded in your proposals. But one listener still wants to know what's the future for tech-prep?

>> MEEDER: Well, we would propose that tech prep be integrated into the new program and that it not sit aside as a freestanding program because so much of what tech prep does, we want to be the norm for career and technical education.

It just wouldn't make sense to have a separate program that then duplicates what all of career-technical education should be about. There may be a role for some funding within a state for innovation, for special projects, and so we're certainly willing to discuss that, that the -- we may want to have a continued innovation or kind of change funding that isn't part of the normal funding system, but we don't believe the separate tech prep program is necessary.

>> MCKINNEY: One of our listeners believes that there should be something about no adult left behind as well as No Child Left Behind, and the real question, I think, is what are the implications of what you've proposed for adult literacy education?

>> MEEDER: Well, that's a good -- I mean, certainly that is what we believe, that every adult needs to be successful.

And the difference is that when you have compulsory education, you have students legally who have to be in school, and you have a student that you should be able to educate, based on what we know about and what we're learning about education.

With adults, it's a different system.

They have to be enticed.

They have to voluntarily see it in their personal interest to make the sacrifice to get further education and training.

And one of the values that we've talked about, particularly in adult literacy, but really in any education, is that if the adult is willing to make that personal investment of time and resources, that they deserve to be able to access a high-quality program.

So with adult literacy, we've had a set of proposals that, again, are based on the best practice within the field of identifying the kind of challenging content standards so that teachers can set up better adult literacy programs that are more structured, help students get the skills they need in a logical sequence, and then we're also wanting to make those programs more accessible through employer-provided programs, workplace programs.

So we will be encouraging working with the employer community to try to deliver as much of that at the work site as possible and then

certainly integrating those basic skills development with the technical vocational skills that students need to really become more employable.

In western North Carolina just recently, there were thousands of individuals laid off from a textile manufacturing company, and certainly anybody looking at the economic trends knew this company was in trouble and that the jobs were at risk.

But even still, after the layoffs happened, we found out that about half, 2,000 or so of those unemployed adults, do not even have a high school diploma.

So there was -- there was a real failure of possibly individuals to take action.

And certainly if they were to take action, they need to be able to

access high-quality programs.

So I hope that individuals -- that we can reach them and let them know how important it is that they need to take skilling, reskilling seriously now and not wait for some tragedy or cataclasmic event that really puts them at a major disadvantage.

>> MCKINNEY: Hans, we very much appreciate your being here today and sharing some of your views about policy directions for career-tech ed, and I want to reemphasize, you invited people to send you their ideas and suggestions, and maybe as you develop these further, you can come back and we can share all of this again.

>> MEEDER: Very good.

Thank you.

>> MCKINNEY: Please join us on November 5th, when Dr. Dolores Perrin, Community College Research Center, Columbia University, will talk about strategies for dealing with remediation in community colleges.

Dr. Perrin's presentation will begin at 3:00 p.m., eastern time.

Thank you for being with us today.

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